

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATION
CS-35: "TREE REVETMENT"

35.1 SCOPE

This specification covers the installation of cabled trees for the protection of stream channels. Installation shall be to the lines and grades as shown on the drawing and to the requirements of this construction specification.

35.2 SITE PREPARATION

The bank shall be shaped to the lines and grades shown in the drawings. Excess material shall be disposed by spreading in the areas shown on the drawings or removed from the site prior to the installation of the tree revetment.

35.3 MATERIALS

The trees for the tree revetment shall be limy deciduous or conifer trees as shown on the drawing, sound, free of excessive decay. They shall be green cut and installed within 30 days of felling having a minimum butt diameter of 10 inches and have a minimum diameter of 5 inches at 20 feet above the butt. The maximum effective length is 20 feet per tree.

The minimum diameter of the galvanized wire rope to fasten trees to the anchor shall be 1/2 inch and to fasten trees together shall be 5/16 inch. All anchors shall be at locations and dimensions using the materials shown on the drawing.

35.4 INSTALLATION

Selected trees with large and numerous limbs shall be placed in critical locations of the revetment such as at the ends of the section, in sharp inside bends on the bank, and in locations where streambank indicate severe erosion. The technical representative will mark selected trees.

The placement of trees shall begin at the downstream end and progress upstream with the butt end of the tree upstream. Trees shall be lapped with butts spaced approximately every 20 feet. Trees shall be fastened together at overlaps. Fill all voids between trees with smaller trees or large limbs and secure with wire rope.

All trees shall be secured with a wire rope to a buried anchor as shown on the drawings. Wire ropes shall have a straight line in tension and fastened with cable clamps. The backfill for the wire rope trenches shall be compacted.